

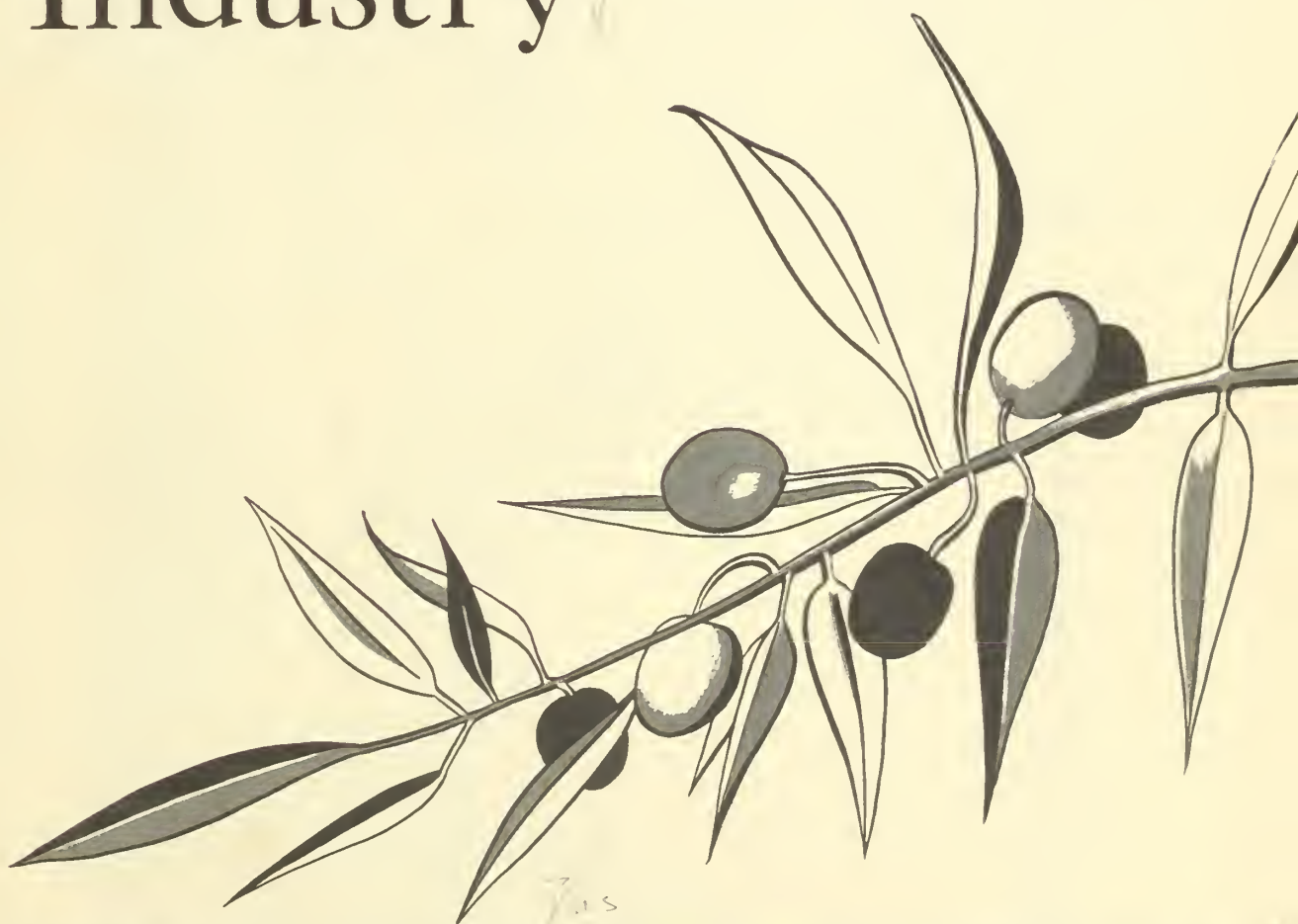
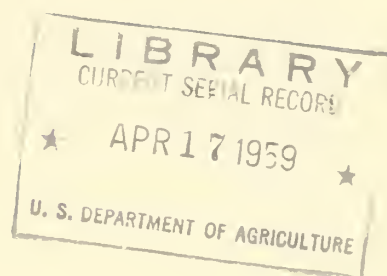
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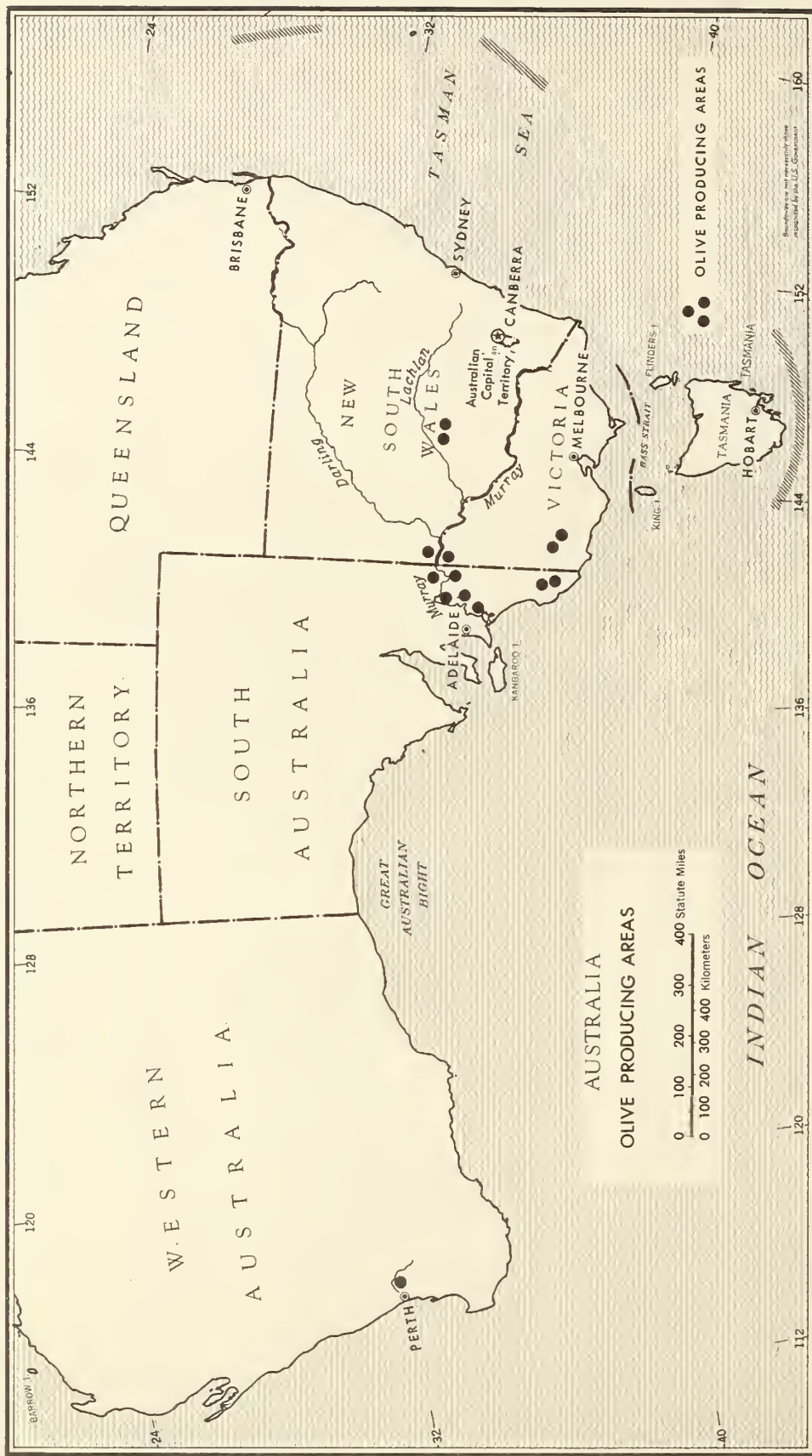
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Australian Olive Industry



U. S. DEPARTMENT OF AGRICULTURE • Foreign Agricultural Service • FAS M 50
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FOREWORD

The Australian olive industry, currently of very modest proportions, can look forward to substantial expansion when recently-planted olive trees mature within the next 10 to 15 years. Australian olive importations, principally from the Mediterranean countries, now amount to between 200 and 250 short tons of table olives and between 1,900 and 2,300 short tons of oil annually. Only 5 percent of Australia's total requirements is domestically produced. Consequently, it is unlikely that Australia will have an exportable olive surplus within the next decade.



D. M. Rubel, Director
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THE AUSTRALIAN OLIVE INDUSTRY

by
Cornelis de Goede, 1/

SUMMARY

As a result of high prices, strong Australian domestic demand, and reduced availability of supplies arising from import restrictions, the Australian olive industry is in the midst of rapid expansion. Production of olives for oil and table use in Australia appears to be both economic and promising, and this has led private companies and promoters to embark on large-scale plantings of olives.

The Australian area planted to olives commercially has increased from 1,419 acres in 1949-50 to 5,203 acres in 1956-57. Not included in these totals are olive trees growing in parks or reserves and on farms as wind-breaks or for ornamental purposes. Because olive trees take a long time to come into bearing, this acreage is not fully reflected in increased production. For example, only 253 acres were bearing in 1949-50 and 822 acres in 1956-57.

In recent years, annual production has ranged between 1,350,000 and 3,000,000 pounds of fresh fruit. Most Australian olives are crushed for oil, though varying quantities are used each year for pickling. Domestic production provides only a small percentage of the local requirements, and olive oil is imported annually, principally from Spain and Italy. In recent years, imports have fluctuated around 2,300 short tons annually, though 1956-57 imports, apparently because of government restrictions, were slightly under 1,900 short tons. Unless Australia's balance of payments improves substantially, there is little likelihood that the ceiling on imports will be raised in the immediate future. Moreover, from 10 to 15 years will be required before the olive acreage now planted will come into bearing.

FRESH OLIVE PRODUCTION

In many areas of Australia the soil and climate are admirably suited for growing olives. South Australia, the northern part of Victoria, and the irrigation districts of New South Wales offer particularly favorable conditions for olive culture, and it is in these areas that the principal groves are located.

Olives have been cultivated in Australia since the early days of settlement, and some of the trees planted in 1805 by John MacArthur at Elizabeth Farm, Parramatta, near Sydney, are still bearing. The industry,

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however, failed to achieve a significant status until recent years because of the relatively lower prices for Mediterranean oils and the limited demand from a population principally of British ancestry.

Over the years many small olive groves were established, particularly in South Australia. Most of these went out of production for various reasons, and, immediately prior to World War II, Australian output of olives and olive oil was small. The position changed considerably during, and subsequent to, World War II when an influx of European immigrants into Australia created an increased demand for both table olives and olive oil. At that time, world market prices for both oil and olives stimulated interest in Australian domestic production. Import restrictions limiting the amount of oil that could be imported and short Mediterranean olive crops resulting from freezes added impetus to the drive to increase domestic production.

Many new plantings have been made since 1950, and further increases in plantings are anticipated during the coming years. In South Australia, one group of farmers initiated a project for planting 5,000 acres near Narraccorte, about 8 years ago. This company is reported to have already cleared 3,000 acres and planted more than half of them. It expects to fulfill its plans for 5,000 acres soon, with stock supplied by its 7-acre nursery.

In northern Victoria, olive groves have been established at Robinvale, on the Murray River. The first of these plantings was made more than 15 years ago, but most trees in this 250-acre grove have been recently set out. Other smaller groves have been established in various parts of Victoria, New South Wales, and South Australia. Most of these are on un-irrigated lands; however, a small proportion is growing under irrigation.

In addition, many olive trees are grown on farms and park lands as windbreaks and for ornamental purposes. Approximately 200 acres of parks and reserves in South Australia consist of olive trees. The data appearing in the following table are based partly upon fruit intake by oil extractors, and partly on information obtained from commercial olive growers in the annual agricultural census.

Most of the olive plantings were made between 1951-52 and 1956-57, and although light crops from these trees can be expected when they reach 5 to 6 years of age, the effects of the increased acreage have yet to be felt. It will probably be in the late 1960's before production from these trees reaches significant proportions. It will then be possible to determine whether olive growing in Australia can become a profitable undertaking, and whether an export industry in competition with production from Mediterranean countries will be practicable.

Since most Australian plantings are young and immature, yields are still relatively low. Better returns can normally be expected where irrigation is employed. In recent seasons, the average yield per tree in South Australia has ranged between 31 and 72 pounds of fresh olives.

When all trees reach full bearing, yields may approach 150 pounds per tree. It should be borne in mind that olive yields vary considerably from year to year, with large olive crops succeeded regularly by small crops.

TABLE 1.--Olives: Commercial acreage, bearing and non-bearing, 1942-43 through 1956-57. 1/

Season	Bearing	Nonbearing	Total
	Acres	Acres	Acres
1942-43.....	312	16	328
1943-44.....	145	195	340
1944-45.....	180	195	375
1945-46.....	253	209	462
1946-47.....	266	938	1,204
1947-48.....	255	907	1,162
1948-49.....	251	942	1,193
1949-50.....	253	1,266	1,419
1950-51.....	261	1,176	1,437
1951-52.....	285	1,635	1,820
1952-53.....	414	2,869	3,283
1953-54.....	467	2,928	3,395
1954-55.....	415	2,886	3,301
1955-56.....	773	4,073	4,846
1956-57.....	822	4,381	5,203

1/ Commercial plantings only. An estimated 200 acres equivalent of olive trees are also grown in South Australian parklands and reserves. Farm groves of less than one acre are not included.

Although production fluctuations indicated in table 2 were principally the result of variations in yield, it is possible that in some years the recorded production was smaller than its actual size. There is reason to believe that when there were adequate supplies of cheap imported oil, particularly during those years prior to 1950, many of the smaller producers either failed to harvest the crops or did not enter them in normal commercial channels. And since production data collected by the Commonwealth Statistician are principally developed from the fruit intake by processors, they may not represent actual production. Data for the years following 1950 are thought to be relatively closer to actual production because of the more favorable marketing conditions experienced.

Varieties

The principal varieties of olives grown in Australia are the Verdale, a dual purpose fruit suitable for both oil and pickling, and the larger-sized Sevillano (Queen) and Manzanillo olives suitable only for pickling.

Small quantities of Mission and Corregiolo are also grown. The Sevillano olive is usually pickled and marketed while the Manzanillo is generally pickled and stuffed before marketing. Most groves are of the Verdale variety because the fruit can be switched from table use to oil depending upon demand.

TABLE 2.--Fresh olives 1/: Estimated production, 1942-43 through 1956-57

Season	Production	Season	Production
	<u>Pounds</u>		<u>Pounds</u>
1942-43.....	2,870,000	1950-51.....	820,000
1943-44.....	560,000	1951-52.....	2,570,000
1944-45.....	680,000	1952-53.....	1,440,000
1945-46.....	810,000	1953-54.....	2,190,000
1946-47.....	1,620,000	1954-55.....	1,410,000
1947-48.....	770,000	1955-56.....	2,520,000
1948-49.....	1,890,000	1956-57.....	2,960,000
1949-50.....	660,000		

1/ Includes fruit harvested from some 200 acres that comprise the South Australian park and reserve areas.

UTILIZATION

Several years ago the trend was in the direction of increased table olive production. Imported oils were then available in sufficient quantities to meet Australian demand, and their costs were relatively low. Since then, labor costs have risen, making the hand-picking of olives much more expensive than harvesting for oil. This, combined with the import restrictions on oil and the high prices caused by the freeze in the Mediterranean areas, led the Australian industry to concentrate on oil production; and even a large percentage of the Queen olives began to be used for oil extraction.

TABLE 3.--Fresh olives: Supply and utilization, 1952-53 through 1955-56

Item	1952-53	1953-54	1954-55	1955-56
	<u>Short tons</u>	<u>Short tons</u>	<u>Short tons</u>	<u>Short tons</u>
Production.....	720	1,098	706	1,260
Utilization				
Pressed for oil.....	618	922	516	1,074
Pickled for table.....	102	176	190	186



OLIVE TREES on a 130-acre plantation near Magill, South Australia. Conditions in this area are particularly favorable to olive culture.

AUSTRALIA'S PRINCIPAL OLIVE varieties are the Verdale used for both oil and pickling, and the larger-sized table olives, the Sevillano and Manzanillo (shown right.)



OLIVE PULP is removed from mill after oil cells have been broken open by milling process. Pulp now goes to the presses.



STACKING WOOLEN MATS filled with pulp into the presses, where as much as 4,000 pounds of hydraulic pressure is often applied.

Cultural Practices

Tree density in Australian olive groves is considerably higher than in Spain. The customary planting rate is 50 trees to the acre, although in some instances as many as 60 trees are planted. Olive trees are also interplanted with stone fruits, such as apricots and peaches, when a grove is being established. The grower is thereby assured some income before the olive trees reach maturity; but as they come into full bearing, the stone fruit trees are removed.

Few recognized sources of planting stock exist in Australia. Most planting stock is custom-grown by nursery men, and it is necessary that it be ordered 2 years in advance. Larger groves usually establish their own nurseries and plan on raising stock for commercial sale after their requirements have been met. Consequently, young trees of recognized better varieties are difficult to purchase and are high priced. Young trees of Verdale variety and the popular Queens reportedly were selling for \$2.24 to \$2.80 each during the 1957 planting season, although common oil varieties, according to size and number purchased, ranged in price from 62 cents to \$1.20 apiece.

Because the Australian olive growing industry was of slight importance in the past, little or no research by State Departments of Agriculture or other agricultural research organizations has been undertaken. However, as the industry develops, a demand for these services will rise.

Harvesting

Olives are harvested for oil by knocking the fruit off the trees with sticks onto sheets of coarse cloth placed on the ground. Olives for table use are picked by hand and packed in paper-lined cases. Harvesting costs are high, despite the simple methods used, particularly for table olives, and costs are said to absorb approximately one-third of the gross returns from the fresh fruit sales.

The South Australian Department of Agriculture has reported that during the 1957 season the market price for fresh oil olives was about \$80 per ton. Whether this price, which is much higher than the Mediterranean equivalent, will be paid by processors in the future is difficult to forecast. It seems likely, however, that when new plantings reach bearing age, prices will decline. The landed cost of imported olives and oil will also influence future prices.

PROCESSING

Table Olives

Processing of table olives in Australia is carried on either by specialized food processors or by the owners of the larger groves. The principal process used is the green Spanish-type curing, although black

ripe olives are also cured. Many olives are also cured by various home methods, largely by people whose origins were in Southern Europe. Though these home-cured olives are usually for family consumption, some are marketed in delicatessen stores and other retail outlets of the larger cities. Only unofficial production statistics are available for processed olive output.

As indicated earlier, it is more profitable for growers to produce olives for oil than for pickling. Some processors who purchase fresh fruit are of the opinion that a shortage of certain pickling olives exists, particularly in the Queen varieties even though imports of pickled olives in casks for rebottling by the processor and marketing under a domestic brand partly alleviate this shortage.

Olive Oil

There are several olive oil extraction plants operating in Australia, most of them in the state of South Australia. Smaller plants are to be found in Victoria and New South Wales. Methods of oil extraction vary from plant to plant. These range from relatively crude equipment to a recently installed, modern Italian-made plant. In general, however, olives are crushed by stone or iron-edged runners after leaves and foreign matter have been removed by air blast. The pulp is then enclosed in hessian or other pressing cloths and subjected to hydraulic pressure, often as much as 4,000 pounds per square inch. After the first pressing, the press cake is mixed with boiling water and a second pressing made. The residue press cake later serves as fuel for the boilers.

Production of olive oil in Australia fluctuated sharply from year to year during the period 1942 through 1957, mainly, as mentioned, because of crop-size variation and the availability of cheaper imported oils. The peak of Australian olive oil production was reached in 1942-43, when war-time conditions interrupted overseas supply and a record harvest for oil processing took place. During that year, oil production amounted to 201 short tons, but in recent years production has fluctuated between 76 and 133 short tons.

Australian trade sources regard domestic olive oil as distinctive in character and consider it a superior product. They maintain that less Australian oil is required in cooking than when using imported oils. One Sydney dealer, however, stated that prior to purchasing Australian oil, he carefully tests samples to detect possible adulteration with peanut oil, a practice that has increased significantly with premium prices for the domestic product. Nevertheless, food regulations in most Australian states are such that large scale adulteration is improbable.

The bulk of the olive oil in Australia is used by householders or food processors. Industrial consumption--chemicals, soap, and pharmaceuticals--has remained steady at approximately 140 short tons for several years.

TABLE 4.--Olive oil: Production and estimated value, 1942-43 through 1956-57

Season	Production	Value ^{1/}
	Short tons	Dollars
1942-43.....	201	85,669
1943-44.....	54	43,082
1944-45.....	50	28,087
1945-46.....	52	28,448
1946-47.....	96	56,647
1947-48.....	40	42,912
1948-49.....	121	86,988
1949-50.....	29	25,106
1950-51.....	53	58,442
1951-52.....	159	157,774
1952-53.....	91	99,210
1953-54.....	131	123,585
1954-55.....	76	65,576
1955-56.....	133	128,121
1956-57.....	118	not available

^{1/} Value shown represents cost at factory door; it does not include distribution and other costs.

FOREIGN TRADE

Imports are needed to satisfy Australia's olive oil requirements since local production provides only 5 percent of the current demand. Spain and Italy are the principal suppliers, between them accounting for approximately 75 percent of total imports in recent years. Small quantities have been imported regularly from France, French North Africa, and Greece, and during 1956-57, a fair quantity was purchased from Argentina.

Data shown in Table 5 relate solely to importations of bulk olive oil, excepting for the years 1953-54 and 1954-55 when no statistical breakdown was available according to type of containers. Since most imports originated in Italy, and olive oil is the most likely vegetable oil to be imported in containers not exceeding one gallon, it is believed that almost all oil reported in Table 5 is olive oil. Subsequent to 1954-55, olive oil imports in containers not exceeding one gallon have been listed separately by the Commonwealth Statistician.

TABLE 5.--Olive oil: Australian imports in bulk, 1942-43 through 1956-57

Season	Quantity	Value
	<u>Short tons</u>	<u>Dollars</u>
1942-43.....	(1/)	--
1943-44.....	13	7,172.48
1944-45.....	(1/)	--
1945-46.....	51	49,622.72
1946-47.....	5	5,398.40
1947-48.....	444	544,315.52
1948-49.....	810	628,839.68
1949-50.....	506	283,534.72
1950-51.....	1,057	786,179.52
1951-52.....	1,048	858,491.20
1952-53.....	1,116	800,898.56
1953-54 <u>2/</u>	2,337	1,610,159.04
1954-55 <u>2/</u>	2,753	1,839,763.52
1955-56.....	2,116	1,543,059.84
1956-57.....	1,679	1,645,918.40

1/ Negligible.

2/ Includes bulk olive oil and oil in containers not exceeding 1 Imperial gallon. For all other years, olive oil in containers of 1 Imperial gallon or less is excluded.

TABLE 6.--Olive oil: Imports in containers not exceeding 1 Imperial gallon 1/, 1947-48 through 1956-57

Season	Quantity	Value
	<u>U. S. Gallons</u>	<u>Dollars</u>
1947-48 <u>2/</u>	271	661
1948-49 <u>2/</u>	4,334	13,785
1949-50 <u>2/</u>	6,400	19,383
1950-51 <u>2/</u>	18,128	63,968
1951-52 <u>2/</u>	17,585	60,191
1952-53 <u>2/</u>	5,825	17,093
1953-54.....	(3/)	(3/)
1954-55.....	(3/)	(3/)
1955-56 <u>4/</u>	8,738	28,874
1956-57 <u>4/</u>	2,711	11,756

1/ An Imperial gallon equals 1.201 U. S. gallons. 2/ All vegetable oils, may include small quantities of oil other than olive oil. 3/ Included with bulk olive oil. 4/ Olive oil only.

Import Licensing

Bulk olive oil is imported under category "A" licenses employed for foodstuffs in general and issued for specific commodities. No substitution is permitted with this type of license. Goods imported under this category are also subject to quota control and consist of essential goods and materials. Quotas are based on the value of the importer's previous record of imports from non-dollar sources and the issued licenses are limited specifically to imports of olive oil. Quotas for these imports were established in 1952 and since July 1956 have been based on importers' entitlements in the preceding licensing period, presently limited to four months.

The fluctuations in olive oil imports in small containers are caused by the licensing policies of the Commonwealth Government. Olive oil in containers not exceeding one Imperial gallon may be imported under category "B" licenses which permit substitutions. Goods admitted under this category are subject to quotas and are largely consumer and less essential goods. These quotas have been based on percentages of the values of imports of all category "B" items imported from non-dollar sources during the year July 1, 1954 to June 30, 1955. This type of licensing dates back to March 1952.

When olive oil prices are high, merchants find it profitable to obtain "B" licenses originally issued for other commodities and thereby supplement their import quotas. Licensing of imported olives from non-dollar sources is also classified under category "B".

Imports of both table olives and olive oil from dollar countries such as the United States are subject to administrative licensing treatment. This means that olives and olive oil are classified as an irregular import and as such are not subject to quota arrangements. Applications for licensing of such imports are considered on their individual merits.

While Australian production of pickled olives, like its oil production, is also well below the requirements of the domestic market, the difference is supplied by imports, principally from Spain, Greece, and Italy. Pickled olives are imported in casks by some of the major food processors and are subsequently repacked in glass jars.

Imported Table Olive and Oil Prices

With respect to the landed, duty-paid cost of imported olives, one importing firm has supplied the following information:

"The price varies of course with the seasonal conditions but a useful indication might be that during 1957 the cost of landing Queen olives from Spain into our factory was approximately \$2.70 per gallon. Each gallon yields approximately 5.8 pounds drained weight of olives. During the present season (1958), it appears that the cost would be approximately \$2.33 per gallon. The cost for stuffed olives will be approximately \$2.80 per gallon."

The landed cost of French and Spanish imported olive oil in bulk (Spring 1958) was quoted at approximately \$2.80 per U. S. gallon delivered in Sydney. Olive oil packed in small containers when imported under license issued for that commodity would cost about \$3.17 to \$3.26 per gallon, but when imported under a license held by someone other than the oil merchant, the price would approximate \$3.54 to \$3.64 per gallon in order to compensate for the profit taken by the license holder.

TABLE 7.--Table olives: Imports, 1954-55 through 1956-57, in brine 1/

Season	:	Quantity	:	Value
	:		:	
	:	<u>Pounds</u> <u>2/</u>	:	<u>Dollars</u>
1954-55.....	:	884,629	:	192,324
1955-56.....	:	833,097	:	189,255
1956-57.....	:	444,573	:	115,349
	:		:	

1/ Imports of pickled or table olives not recorded separately prior to 1954-55.

2/ Net pounds in brine.

Exports

Exports of olives and olive oil from Australia are negligible and are limited to small shipments of domestically packed olives and oil to New Zealand and the nearby islands of the Pacific.

Import Duties

Import duties on olives and olive oil have remained unchanged since the early 1930's. Since these are specific duties per gallon, the ad valorem value has decreased with increasing prices, affording less protection to the domestic industry. The rate for bulk olive oil is 19 cents per U. S. gallon, and this applies to imports from all major countries of supply. The British preferential rate is 14 cents per gallon, but no imports from British countries have taken place in recent years.

The tariff rate on olive oil in containers not exceeding one gallon is considerably higher, varying with the type of container. The rates appearing in Table 8 presently apply for each dozen containers under the British preferential and regular Australian import tariffs.

Import duties on pickled olives also vary by type of container, but few imports are made of olives packed in containers of less than one gallon. Practically all pickled olives imported are packed in casks to which a British preferential rate of 14 cents and a regular Australian tariff rate of 19 cents per gallon in brine are applied. Most olives imported originate in countries to which the standard tariff rate of 19 cents per gallon applies.

TABLE 8.-- Olive oil: British and U. S. tariff rates for Australian olive oil

Item and Unit	Tariff Rates	
	<u>British Preferential</u>	<u>Regular Australian</u>
	<u>Dollars</u>	<u>Dollars</u>
Quarter pints and smaller, per dozen.....	0.09	0.14
Half pints and over quarter pints, per dozen.....	.19	.28
Pints and over half pints, per dozen.....	.37	.56
Quarts and over one pint, per dozen.....	.75	1.12
Over one quart, per gallon.....	.22	.40

CONCLUSIONS

Whether or not olive growing in Australia will be an economic proposition at the end of the next 10 years will depend upon many factors, such as the continuance of import restrictions and the ability of the Australian producer to hold his costs at levels that permit successful competition. This competition may be expected to come from olives grown in the Mediterranean Basin and other areas. However, greater expansion of planted acreage will be required if Australian olives and olive oil are to replace imported supplies and eventually provide an exportable surplus.

On the basis of 50 trees per acre and a possible yield of 150 pounds per tree, the present Australian olive acreage could produce a potential harvest of approximately 36.5 million pounds of fresh fruit. The average Australian oil yield is reported as 18 percent. Potential oil production around 1970 would amount to 6.5 million pounds, or 850,000 gallons of oil. Allowing for increased consumption arising from population growth, this would barely satisfy oil requirements, with no allowances for olives for table use. However, should new plantings continue at their present rate, future production may be expected to exceed domestic market requirements and provide an exportable surplus.

The attitude of Australian authorities with respect to development of the domestic olive industry is a cautious one. There is some feeling that the lower-cost economies of the major olive-producing countries are such that Australian producers can compete only with the assistance of import restrictions. Much of the increased Australian olive acreage is the result of promotion schemes by companies and private individuals who sell shares in these ventures on a per acre basis. The larger firms in this business appear well managed. Benefitting from advice from Californian and Italian authorities, they seek better varieties, improved cultural practices, and up-to-date processing methods.